
Seamless Government Issues

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By the Department of Information Resources



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Executive Summary

The goal of seamless government is to make government information and services readily available to all citizens at all times. This vision can be realized by moving as much information and as many services online as possible, and by cooperative, integrated planning among and between state and local governmental entities.

In adopting Senate Bill 801 during the 76th Regular Session of the Texas Legislature, State leaders recognized the need to move government information and services to the Internet. This legislation addresses the importance of providing access to government information from the citizen's perspective, not the agency perspective.

Seamless government will present a single, function-driven face to the public. To present a single face implies "one-stop shopping." Branded Web pages assure citizens that they are using an authentic, government-sponsored Web site; and citizens will need only to visit a single Web site—TexasOnline—to interact with state and local government. To be function-driven means ease-of-use, that is, citizens need only know *what* they want to do (for example, obtain a birth certificate or re-new a drivers license), not *whom* they must contact to do it (for example, the County Clerk, State Health Department, Department of Public Safety, etc.).

While many benefits will be gained through seamless online government, issues inevitably arise due to the size, newness and complexity of the initiative. There are three major issues associated with seamless government:

- Coordination across governmental boundaries;
- Promoting the use of the portal among State and local governments; and
- Creating portal awareness across Texas.

The term "portal," as it is used throughout this paper, means a gateway—a single Web address that citizens can go to for access to all government information and services. A portal allows government entities to aggregate and share content such as information, services, and service delivery systems with citizens, business partners, employees, and suppliers. TexasOnline is an example of a government Web portal (see: www.TexasOnline.com).

To fully realize the potential of a Web portal for Texas government, it is important to establish policies and procedures which requires governments to plan their online services in an integrated fashion. The portal should serve as an enabler, a step towards the ultimate goal of creating one-stop shopping for the Texas business community and general public.

Many state and local governmental bodies do not have adequate funding to port current services to the Web. Funds are also needed to develop new applications to consolidate and share data collection and processing across governmental entities. The Legislature should offer incentives to governmental agencies that use the portal. One potential source for enabling more services is through re-investing the fees collected from use of the portal. Beginning in Fiscal Year 2002, the state receives 10% of the gross revenue received, and shares the net revenue on a 50/50 basis after the vendor's expenses are recovered. At present, any funds received would

be sent to general revenue. Using these funds to re-invest in portal development would allow additional applications to be placed online.

In order to realize seamless government in Texas, the Electronic Government Task Force offers the following recommendations:

1. The Legislature should establish a governing body to oversee the implementation, expansion and operation of the portal. This governing body should represent all of Texas and be comprised of (a) members from state legislative leadership, (b) the Governor's Office, (c) state agency and university representatives, including representatives from the OAG, CPA, DIR, and SAO, (d) members from county and municipal governmental entities, (e) representatives of the Texas business community, and (f) members of the general public.

DIR should provide administrative support and fiscal oversight for the governing body. The DIR Board should provide a forum for rulemaking as well as the necessary management controls to insure the appropriate oversight for the use of public resources.

The duties and responsibilities of the governing body would include:

- Developing policies related to governance of the portal, including, but not limited to, security, authentication, and implementation.
 - Preparing rules and regulations for operation of the portal to be enacted through the rule-making authority of the DIR Board.
 - Approving initiatives for the agencies and local governments that use the portal.
 - Conducting outreach to state agencies, local government entities, the business community and the public to promote portal use.
 - Overseeing contracts with and performance of business partners involved in operation of the portal.
 - Overseeing funds generated for operation and expansion of the portal.
 - Developing pricing guidelines and policies for both state and local government.
 - Providing an annual update to the Legislature, Governor's Office, and the SAO, as well as to key stakeholders, regarding the portal status, progress, benefits, and efficiency gains.
 - Evaluating portal projects to gain an understanding of the improvements achieved in performance efficiency. This will provide a baseline of benefits data that can be used to evaluate other opportunities to enhance government service delivery through the Internet.
2. The Legislature should establish a Portal Management Office at DIR to provide staff support for the governing body and to provide for day-to-day management of the portal. The Portal Management Office should report administratively to DIR while assisting and

supporting the new governing body in administration of the portal. Duties and responsibilities of the Portal Management Office should include:

- DIR, through the Portal Management Office, should serve as the governing body's fiscal and administrative agent.
 - Implementing the policies, rules, and procedures adopted for portal operation.
 - Developing standards for services and systems offered through the portal (security, authentication, application interfaces, application appearance, Web content, etc.).
 - Day-to-day contract management and performance monitoring of the business partners that operate the portal.
 - Assisting agencies and local government entities in bringing services and systems onto the portal.
 - Assisting agencies and local government entities in researching and identifying potential funding sources, developing grant application materials, and seeking specialized funding for Internet projects.
 - Assisting the Legislature and state leaders in technical coordination of electronic government initiatives.
 - Developing policies and procedures (for approval of the new governing body) to help ensure that all Web pages accessed through the portal have the following characteristics:
 - The same look and feel for navigational purposes (and for consistency with existing Web standards);
 - An insignia or icon (branding) that helps identify pages as part of the secure state portal, TexasOnline; and
 - Links across government boundaries, where needed, so that citizens, businesses, and other portal users can make smooth transitions across governments without needing to know the specific entities and/or systems.
 - Coordinating operations between various levels of government to achieve integrated planning.
 - Implementing and negotiating approved policies, guidelines, standards, pricing, and other directives.
3. The new governing body should establish a TexasOnline brand for the Web site, and establish policies and procedures for organizations providing government services through the portal to show the brand on their Web pages. The governing body should ensure the integrity of the brand by taking the necessary precautions against unauthorized use.
 4. The Legislature should provide guidance that each state agency must consider the portal for all planned Web applications that include financial exchanges and/or authentication. All agencies should consider using the portal for their Web applications that include stringent security requirements. Agencies who choose not to use the portal for applications with

financial, authentication, or high security requirements must be able to that security, disaster recovery, privacy and lower costs are at least equivalent to the services and costs available through the portal.

5. The new governing body should promote the use of the portal and provide information to the public, communities, governmental entities, and state leadership through *outreach efforts* to ensure:
 - Citizens are informed about how best to use the portal,
 - Government agencies have help available to improve their utilization of the portal,
 - New applications are publicized adequately so that anticipated transaction volumes are realized, and
 - Future applications are designed with a uniform look and feel.

The outreach campaign should include information for government entities within Texas as to the services available through and potential benefits of the portal.

Background

Recognizing the importance of electronic commerce to the state and its potential to increase the effectiveness of state government, the Texas State Legislature mandated the demonstration of electronic government through Senate Bill 974. The 1999 legislation charges the Department of Information Resources with "establishing a task force to assess the current and future feasibility of establishing a common electronic system using the Internet through which state agencies and local governments can accomplish the following types of functions electronically:

- Send documents to members of the public and persons who are regulated by a state agency or local government;
- Receive applications for licenses and permits and receive documents for filing from members of the public and persons who are regulated by a state agency or local government that, when a signature is necessary, can be electronically signed by the member of the public or regulated person; and
- Receive required payments from members of the public and persons who are regulated by a state agency or local government."

To accomplish its mission, the Task Force issued a statewide contract for development of a "common business portal" as a framework through which state and local government entities can provide information and interactive services to the public.

This report will give an overview of the concepts of seamless government. A list of recommendations is provided to help realize seamless government in Texas.

Introduction

Use of the Internet grew substantially during the 1990s. By the end of the decade, access to the Internet was estimated at 30% of the U.S. population, according to information compiled by the U.S. Bureau of Census. As these figures continue to climb, governments increasingly turn to the World Wide Web as a medium for communicating and publishing information related to public service. As this medium continues to evolve, governments are expanding their use of this technology by providing services on the Web with which the public can interact and conduct business.¹

The Internet revolution has sparked a trend called electronic government, or e-government. This term refers to government's use of technology to improve service to the public and offers the government an opportunity to transform service delivery. Rather than relying on employees to respond to inquiries or process requests for information, through the use of e-government, the public can "serve themselves" to a wide variety of information and services. Through e-government, citizens are able to get "online" rather than "in line," thereby increasing the efficiency with which citizens are served.² As previously discussed, e-government also enables the government bodies to focus more on their core competencies and less on routine data collection and processing. The customer is made self-sufficient. Being able to pay for gas

at the pump versus paying inside the filling station is an example of this. An entire layer of burdensome handling has been removed by the customer paying at the pump rather than the station accepting, processing, and managing the payment. The end result is a faster, more efficient receipt of goods or services.

Although typically associated with the Internet, e-government encompasses other technologies that can be applied for this purpose, including telephony solutions such as Integrated Voice Response (IVR), whereby the public is able to access information or conduct business via selections made on a telephone. Access to the telephone has been estimated at 98% of the U.S. population.

Seamless government is simply access to information that has been tied together across small, medium, and large governmental bodies' use of technology. The single face is reflected in the form of a government "portal." A portal allows an organization to aggregate and share content—information, information, services, and service delivery systems—with customers, partners, employees, and suppliers. Portals bring together technology, business processes, and business partners, enabling organizations to exchange information inside and outside a secured firewall. The Texas portal, TexasOnline, allows state and local governments to employ a single address (URL) through which the public receives customized and even personalized information as well as vital government services. Informational data and services from various governments can be made to have a similar look and feel (this technique is called "branding"). This enables the citizen to:

- Have a united form of navigation throughout the portal and other government links to the greatest degree possible, and
- Have a comfortable sense of security that all sites are indeed provided by a state or local government, and that the sites support and/or identify the level of privacy that can be expected.

Technology leaders also argue that e-government portals will become much more than a central terminal for state government transactions. Portals will serve as a catalyst for economic development by showcasing area businesses and displaying the state to international investors. Portals are windows to an array of Internet-based content. An example would be an "Online Citizen Services" option on the main page that links citizens to all electronic services offered by the state.

Expectations are that the portal will provide:

- Solid relationships with employees, customers, suppliers, and partners
- New business models, e-strategies and in-depth understanding and analysis of the community's use of the Internet
- Secure, real-time information sharing
- Easy integration with current assets and technology investments which span multiple government organizations
- Increased customer satisfaction through better service, and

- Value added content and services to the business community through partnerships and portal content management.

Vertical and Horizontal Integration

Historically, state and local governments have developed user services in separate environments with little or no communication among them. In order to create a seamless government in Texas, a new level of communication and cooperative planning must occur among state and local governmental entities. Horizontal planning, among state agencies within either a specific Appropriations Article or among agencies with common goals and functions, is essential to realizing economies of scale and to avoid “re-inventing the wheel.” Likewise, vertical planning, among state and local governmental entities, is essential to creating “seamless” governmental services.

Seamless governmental services are “function” driven; that is, the citizen need only know *what* he or she wants to do (I want a copy of my birth certificate), not *where* he or she must go to do it (you must contact the Texas Department of Health for a birth certificate). A more complex example of seamless government involves a contractor who wants to construct a building. Local laws may require the contractor to obtain a building permit while state laws may require the contractor to perform an environmental site assessment prior to construction. Seamless government provides the types of services and information the contractor will need at one Web site, without the contractor needing to know that he/she must interact with a specific municipal department and a specific state agency. The focal point for seamless governmental services is the Web portal.

A set of services that provide a common platform can serve as the basis for better management of information and service delivery systems, while reducing deployment and administration costs. Portal resources can combine state and local resources, thus reducing individual efforts as well as redundant efforts. Additionally, the sooner government services are designed for the portal, the more cost reductions the state will receive from taking advantage of shared resources and by the resulting increased user base. Consideration of the portal is recommended to occur in the early planning phases of all information technology projects and agency service system designs or enhancements.

TexasOnline has already procured and established the hardware framework and development services to assist in government Web development. Cost avoidance to the state is expected in future services being brought to the portal. Statewide policies should be implemented requiring state and local governments to consider moving existing and planned services to the portal unless it can be demonstrated that the governmental entity can provide equal levels of security, privacy, disaster recovery, and lower development costs through other means.

Five Levels of Portals

The National Electronic Commerce Coordinating Council (NECCC) has defined government portals based on five levels. Each level becomes increasingly difficult to master and requires greater cooperation to accomplish. These levels are identified below.

Level One

At a basic level, portals deliver information or services in a way that is intuitively obvious to citizens with very few clicks. Citizens of a level one portal do not need to know that tax forms come from the Department of Revenue. They simply click a tax forms button on the state portal site. These sites mask the complexity of government by presenting electronic services and information from the citizen's point of view. It is the NECCC's opinion that most governments are already at level one or will be soon.

Level Two

The next steps in the evolution offer increasing levels of electronic interaction and integration. Level two sites offer most common government transactions online. For many states this will mean the top five highest transaction volume applications. This generally includes such applications as vehicle registration renewals, professional licensing, tax filing and bill payment. Approximately 15 to 20 percent of governments will be at this level by the end of the year 2000.

Level Three

Level three sites allow citizens to jump from one government transaction to another without the need for separate authentication. At the highest levels of development, portals offer seamless collaboration between government organizations and demand that public-sector databases become interactive and interface with each other.

Level Four

A level four site draws the information needed for transactions from existing government sources. On these sites, customer data is collected just once and is available throughout the enterprise.

Level Five

Ultimately, level five portals will provide aggregated and customized information to citizens on subject areas that interest them. The NECCC describes these portals as complex, growing organisms, rich in data, transactions and multimedia. Texas Online is planned to evolve to level five portal capabilities.

Perceived Advantages of Seamless Government

Perhaps the two biggest advantages of seamless government are ease of use and economy of scale. Citizens benefit by ease of use, while governmental entities benefit by economy of scale. Perceived advantages include:

- Transparent government operations

No need to know details of which agency or government performs which services (where to go next). Technology officials expect portals to fundamentally improve the way citizens interact with government and their communities. A click of a mouse on a page will deliver the services to the user versus the user having to research and contact each government source/office that processes specific requests.

- The citizen will be able to anonymously research programs available (for example human services programs including welfare and food stamps). This can all be done in the privacy of their own homes without having to visit a government office.³ Navigation tools will continue to provide alternate approaches to access the same information based on different search terms. A citizen can continue to reach the desired search results through this means. Additionally, advanced search engines can be developed and shared by all cooperating state and local government entities, to assist citizens in navigating the many screens, reports, files and databases of government information.
- Portals will allow citizens to walk through the myriad of services available to them without having to know which agency provides the services. Direct queries can be made through online searches providing resulting data to the citizen with no personal contact required.
- Ease/consistency of use and navigation
Citizens, as well as private and public sector personnel, will be able to navigate through the immense volumes of government information as a result of easy-to-use search engines provided by the portal.
- Improved accuracy of electronically accessible records
As a direct link from the home page, there is a link to the Texas State Library and Archives catalogue and document archive system (TRAIL). This is an excellent example of the types of information sharing and knowledge exchange that is possible from a portal with users from citizenry to government to business users. Now, with a single query, Texas citizens with Internet access can easily locate information resources not only from the 150 Texas State agencies represented in the TRAIL service, but also from the state library's electronic catalog. TRAIL is one way in which the Texas State Library has been able to take the lead in providing the library of the future.
- Increased access to government information
Access is directly increased through use of the system. For example, citizens in rural and urban areas will have the same access opportunities; requests can be made at any time, not just during business hours; and schools and libraries will be able to provide immediate access for students and researchers.

Access also increases as a result of the demand for government information in the private sector. Charging for information and services that have great value to private businesses, in an automated format, allows the government to provide other, less market-driven information free. Citizens thus benefit from the sales to the private sector. The private

sector has indicated their willingness to pay these charges since the electronic format of the data allows them to perform their own research more easily without having to recreate the information themselves. They are paying for the increased convenience not just the data itself. Many privacy concerns must be addressed to incorporate this revenue source into state government. More detailed discussion of privacy concerns can be found in the white paper [Privacy Issues Involved in Electronic Government](#).

- Time savings
The government portal concept developed from the idea that single-point electronic access to data would benefit not only the public but also the agencies. Online services would enable government entities to spend less time answering information requests that could be easily answered electronically.
- Cost savings
Many state agencies have discovered an efficient and cost-effective way to provide access to public information—the Internet. However, funding networking capabilities for each agency is expensive and duplicative. Supporters of portals ask, why buy a server for each agency when one well-managed server could do the job for all? Centralizing the availability of electronic public records saves the state money by reducing the amount of hardware/software and technical expertise needed. In addition, network proponents note that centralization helps reduce the duplication of records among agencies. Portals facilitate research since one site can be searched and it is possible to link all other internal links in the search from the portal level. Independent, duplicate searches may become a thing of the past when looking for information from the government.

Perceived Challenges to Seamless Government

- Security
As more sophisticated systems develop, states will have to meet the challenge of providing dependable ways to manage security. Critics of portals are wary of network security breaches and emphasize that networks must ensure the security of correspondence and monetary transactions in order to protect citizens and agencies from computer fraud or negligent dissemination of private information to third parties. Portal security is only as good as its weakest link.
- Elimination of face-to-face contact
Traditionally, people needing government information either write, telephone, or physically go to an office to request that information. Speaking directly with a knowledgeable agency employee can help focus the inquiry and provide answers to any questions that arise. Critics of portals point out that direct electronic access to information eliminates this human touch, potentially resulting in a confusing and frustrating experience for the requester. However, the portal is just one channel of communication with the user. Seamless electronic government does not replace human intervention. E-government does not replace human interaction as part of the service delivery process, but rather frees

government staff to more promptly address issues and problems that are their core mission rather than fulfill routine information requests.

- Access costs

There are concerns about the costs of access and how fees are set. Questions can be raised about the practice of government generating revenue from the sale of public information and what role the private network managers play in setting fees. State statutes often spell out specific fee schedules for access to public records, and the argument can be made that agencies should not charge access fees in addition to the fees found in statutory guidelines.

- Privacy

There is concern that personal privacy may be less protected. In essence, there is a mosaic effect that can result from using various searches to piece together information related to an individual that was previously spread out over numerous agencies and separated by multiple applications and different search engines. Power search engines will not only assist the citizen in gaining valuable information, it will also potentially expose private information if clear and united privacy policies are not attached to the information at the time the data is collected.

- Infrastructure capacity

Technically, portals can be slow to respond and unable to handle demands placed upon them. The more searching capabilities that the portal provides to a user, the more intense and complicated the search can be. Other concerns include bandwidth requirements for data transfers and file transfer speeds. These should be monitored to ensure customer service levels are met. Additionally, there must be the ability to expand and allow new applications and online services on to the portal. If processing speed, storage, and bandwidth become overloaded, the results will include incomplete transfers of information for searches, poor data access in browsers, and extremely slow response times. The cause of this poor functionality will not be visible to the user and will be frustrating.

Issues and Recommendations

TexasOnline seeks to achieve the advantages of seamless government while addressing the challenges. There are three main issues the Task Force is addressing:

- Coordination across government boundaries;
- Promoting the use of the portal among state agencies; and
- Portal awareness across Texas.

Coordination across Government Boundaries

Texas government has a decentralized framework with independent operations being conducted among various government entities. Governmental bodies compete for such fundamentals as funding and control/approval authority for decisions related to application and functional design.

Currently, governmental entities within the state of Texas design their own service delivery infrastructures and Web application appearances based on internal standards. Even though DIR has adopted standards for state government Internet Web sites (1 Texas Administrative Code 201.12), Texas governments at the state and local level have not adopted and do not use “*enterprise*” standards for design and development. Right now, multiple governmental infrastructures exist for data input, processing and payment. This makes it difficult for the citizen to be confident that statewide standards and adequate security have been applied to all applications since the applications appear so differently on the screen. Some common design elements for applications coming onto the portal would improve the ease of use for the public, businesses, and government entities.

Local and state governments should have a coordinated approach to e-government service delivery and operation. Having a single face of government will ease the Texas citizens’ burden in conducting government business and assure them that they are, in fact, doing business with the State of Texas. Creating this “single face” will necessitate communication among levels of government that have not previously had to integrate planning for operations and service delivery.

Enterprise-wide, integrated planning horizontally (among agencies within the same Appropriation Article or with government bodies that provide the same function) will result in:

- Realizing economies of scale for obtaining computer equipment, software, and services to build Internet systems.
- Sharing processes and systems across functions, so that governmental entities do not have to reinvent the wheel.
- Reducing redundancy of effort.

- Focusing on what the citizen needs, not what the government entity needs.

The first issue to be considered in providing a single approach to e-government service delivery is Web site branding to distinguish TexasOnline pages from other non-portal pages. This differentiation will build public confidence in online transactions over the Internet by assuring citizens that sites with the TexasOnline brand are official sites. Currently the accepted form of authentication of a government site is the domain name. The form “[agency initials].state.tx.us” has been reserved for use by state agencies. As more government services and payments for those services are provided online, the risk of hackers hijacking a site will increase. The portal has implemented safeguards to protect the site from intruders.

Promoting the Use of the Portal among State Agencies

In order to realize the full benefits of the state’s investment in TexasOnline, agencies should consider the portal first when bringing government services to the Internet. Both government enterprise and the individual state agencies will gain from the migration of systems to the portal from individual state Web pages. Benefits will include:

- Expanded customer services base;
- Improved operating efficiency;
- Enhanced opportunities for collaboration and joint development as a result of data sharing;
- Increased longevity of applications as a result of standards and common protocols;
- Simplified access to new and legacy data due to adopting standard, well-defined interfaces;
- Expansion of services available through the portal; and
- Potential project development cost savings to agencies through allocation of resources generated through use of the portal.

All these benefits relate directly to the long-term advancement of service improvement to state customers. As each new function is analyzed to see if it can be moved to the Internet, agencies should reengineer and restructure their supporting internal processes. All requirements, forms, and paperwork should be examined to streamline that which is necessary and eliminate that which is not.

Portal Awareness across Texas

Although there are varied views and definitions for the nature and uses of a state portal, there is almost universal agreement that there are benefits to be gained by developing the portal to serve as a single entry point for online government services. TexasOnline provides a single Internet entry point where citizens and businesses can:

- Access government information through a straightforward, intuitive interface;
- Obtain information that is categorized by function – such as vehicle registration, tax filing, and business filing – not by government entity;

- Conduct online transactions with government in a secure environment; and
- Gain access to multiple services and functions of government with a single authentication point or process, (i.e. a citizen is only required to identify himself or herself once, not for each specific request for information or transaction).

In order to raise awareness about the availability and functions of TexasOnline, a communication campaign should be developed that is targeted to two distinct groups:

- Citizens and businesses who can access government services through the portal; and
- Government entities that can improve services and operational performance by making services available through the portal.

Recommendations

Each recommendation is prefaced by a code indicating the specific government body the recommendation most concerns:

LEG – These are recommendations that require legislative action in order to be implemented.

STATE – These are recommendations that can be implemented through state agency action.

TF – These recommendations require Task Force initiatives for setting portal policies and standards.

1. (*TF*) The new governing body should establish a team to discuss and resolve major issues related to commonality and cohesiveness of design for delivery of government services through TexasOnline. This team should be comprised of representatives from each of the following:

- State agencies and universities (large and small);
- Local government entities (city, county, etc.); and
- Various user and business communities.

Leadership representation in the team would provide both input from the Legislature and a knowledge exchange opportunity from the team to the Legislature for program support and resource allocation.

Establishing a forum for input from this diverse group will help insure that government systems available through the portal are planned and integrated across agencies and levels of jurisdiction.

2. (*STATE/TF*) The new governing body should establish a TexasOnline brand for the Web site, and establish policies and procedures for organizations providing government services through the portal to show the brand on their Web pages. The governing body should ensure the integrity of the brand by taking the necessary precautions against unauthorized use.

3. (*LEG*) The Legislature should provide guidance that each state agency must consider the portal for all planned Web applications that include financial exchanges and/or authentication. All agencies should consider using the portal for their Web applications that include stringent security requirements. Agencies who choose not to use the portal for applications with financial, authentication, or high security requirements must be able to demonstrate, through such review and approval processes as the Biennial Operating Plan, that security, disaster recovery, privacy and lower costs are at least equivalent to the services and costs available through the portal.
4. (*TF*) The new governing body should promote the use of the portal and provide information to the public, communities, governmental entities, and state leadership through *outreach efforts* to ensure:
 - Citizens are informed about how best to use the portal,
 - Government agencies have help available to improve their utilization of the portal,
 - New applications are publicized adequately so that anticipated transaction volumes are realized; and
 - Future applications are designed with a uniform look and feel.

The outreach campaign should include information for government entities within Texas as to the services available and potential benefits of the portal.

Conclusion

At least 50% of all households will have Internet access by the year 2001, the Electronic Government Task Force envisions TexasOnline as a one-stop government shop filled with information and online services including the ability for Texas citizens and businesses to “personalize” the portal to reflect personal needs and preferences.

Additional Resources

The following documents may serve as a reference for further reading related to lessons learned from other state efforts:

1. Government Technology Magazine (February 2000 Issue); Digital Villages Dot the Electronic Frontier Bill McGarigle | Contributing Editor; Small communities turn to high-bandwidth solutions to solve economic-development woes.
2. <http://www.itflorida.com>; 1999 Annual Report to the Legislature Information Service Technology Development Task Force, February 14, 2000 : Florida's gateway to information technology
3. Government Technology Magazine (GIG (Government Internet Guide) 1999 Issue); The Best of by Steven Towns.
4. http://www.state.fl.us/myflorida/eog_new/eog/vision/govCloserToPeople.html ; Bringing State Government Closer to the People it Serves, The State of Florida page
5. <http://www.civic.com/civic/articles/2000/0731/-1nc-07-31-00.asp>; NC (North Carolina) Government Continues to Fortify E-Government, by Daniel Keegan, 7/31/2000
6. <http://www.ncsl.org/programs/lis/cip/elec-govt.htm>; Telecommunications & Information Technology
Electronic Government, National Conference of State Legislatures

The following document should serve as a reference for further reading related to alternate technologies:

Government Technology Magazine (February 2000 Issue); An Image Transformed, Document Imaging remains popular for solving government's paper problems, but less expensive and more innovative alternatives are beginning to appear. By Tod Newcombe, Features Editor

The following document should serve as a reference for further reading related to Government Portal Project Offices:

<http://www.ncgov.com/projectoffice/index.html>, Welcome to the North Carolina at your service Project Office

Endnotes

¹ <http://www.co.miami-dade.fl.us/cio/egov/intro.htm> Miami Dade County, An Intro to E- Government

² One-Stop Shopping for Government Information Policy and Technology Series
by Anneliese May

³ Internet gives twist to human services arena by Heather Herrald , 07/03/2000.